REMARKS

Applicant requests reconsideration of the application in view of the foregoing amendments and the discussion that follows. The status of the claims as of this response is as follows: Claims 1, 2 and 4-29 are pending. Claim 3 was canceled previously and claims 1-2, 4-11 and 24 have been canceled herein without prejudice to Applicant's filing of one or more continuation applications to the subject matter thereof. Claims 12, 14 and 16 have been amended herein and claims 30-38 have been added.

The Amendments

Claim 12 was amended to incorporate therein the subject matter of claim 1, from which claim 12 originally depended.

Claim 14 was amended to incorporate therein the subject matter of claims 1 and 4, from which claim 14 originally depended. Claim 14 was also amended in steps (a) and (b) to refer to "fluid sample" to provide internal consistency within the language of the claim.

Claim 16 was amended to recite that the step of generating intermittent centrifugal force causes repetitive reciprocal movement of fluid between the linear array and the mixing area sufficient to cause mixing of fluid by agitation. Support therefor is in the specification, for example, page 8, lines 10-11, and page 32, lines 9-16. Claim 16 was also amended to refer to biopolymer features. Support therefor is in the specification, for example, original claim 24. Claim 16 was also amended in steps (a) and (b) to refer to "fluid sample" to provide internal consistency within the language of the claim.

Claims 30-38 were added and are based on original claims as follows: claims 30-34 were based on claims 4-5, 6, 26, 25 and 16 respectively and claims 35-38 were based on claims 6, 26, 25 and 16, respectively.

The above amendments and new claims were discussed in the Interview as explained more fully below.

Rejection under 35 U.S.C. §102

Claims 1-2 were rejected under the second paragraph of the above code section as being anticipated by Kellogg, *et al.* (US 2002/0097632) (Kellogg).

Without acquiescing in the assertions in the Office Action, Applicant submits that the cancellation of claims 1-2 above renders this rejection moot.

Rejection under 35 U.S.C. §103

Claims 4-11 and 16-29 were rejected under 35 U.S.C. 103(a) as being unpatentable over Kellogg in view of Chee, *et al.* (U.S. Patent No. 5,837,832) (Chee). The Office Action recognizes that Kellogg does not teach a linear microarray of biopolymer features. However, asserts the Office Action, Chee teaches forming a linear microarray of biopolymer features (see col. 1, lines 19-24; col. 2 lines 26-37). It would have been obvious to one of ordinary skill in the art, contends the Office Action, to have arranged the features of Kellogg in a linear microarray as taught by Chee to achieve the rapid and efficient detection capability explained by Chee in col. 7, lines 55-57.

Without acquiescing in the assertion in the Office Action, the cancellation of claims 4-11 above obviates the rejection of those claims under this ground of rejection.

Claim 16 has been amended in a manner consistent with what the Office Action indicated was allowable subject matter. Claim 16 was amended to refer to a linear array of biopolymer features and also to recite repetitive reciprocal movement of the sample between the linear array and the mixing area.

The above amendments to claim 16 were discussed in the Interview. However, while the Examiner indicated that such amendments may overcome the above rejection, no agreement was reached.

Applicant submits that the combined teachings of Kellogg and Chee do not disclose or suggest the method of present claim 16. Kellogg employs his device to achieve mixing by diffusion. Thus, fluids are introduced into chamber 202, from which they are moved into capillary 203 for a period of time to achieve mixing of the fluids by diffusion [0052]. Then, fluids are moved back into chamber 202 and, then, after a period of time, the fluids are moved back into capillary 203, again for a period of time to achieve mixing by diffusion. Kellogg goes into some detail on how one achieves mixing by diffusion and sets out equations for calculating time periods and the like to achieve diffusional mixing [0052].

On the other hand, in the present method fluid sample is introduced into an opening at one end of an interior of a housing comprising a linear microarray and

intermittently moved between the interior and a mixing area that is at an opposing end of the interior of the housing where the opening is. The structural member is in the interior adjacent the mixing area. Fluid sample is moved repetitively back and forth between the linear microarray and the mixing area to achieve mixing of the fluid sample by agitation, not by diffusion as in Kellogg.

This is discussed in the specification at page 4, lines 22-29, and page 8, lines 10-11. As discussed above, mixing by agitation in Applicant's invention is important because the fluid in Applicant's methods can become depleted of reactants near the features on the linear array because of binding of molecules to the features of the array. Kellogg does not offer any information relevant to this since Kellogg is concerned only with mixing by diffusion. Accordingly, Kellogg does not anticipate or suggest the method of claim 16 of the present application, and combining the teaching of Kellogg with that of Chee does not cure this lack of teaching on the part of Kellogg. Thus, the combined teachings of the references do not produce the presently claimed method of claim 16.

Without acquiescing in the assertion in the Office Action, claims 17 and 18 are patentable over the combined teachings of Kellogg and Chee at least because of their respective dependency ultimately from Claim 16, which is patentable over the reference as indicated above.

Claim 19 is patentable over the combined teachings of the references. The teachings of Kellogg and Chee do not suggest a method wherein a wash fluid is introduced into a housing as defined and intermittent centrifugal force is generated sufficient to cause agitation of the wash fluid.

Without acquiescing in the assertion in the Office Action, claims 20-23 and 25-29 are patentable over the combined teachings of Kellogg and Chee at least because of their respective dependency ultimately from Claim 16, which is patentable over the reference as demonstrated above.

Claim 24 was canceled, thus, rendering the rejection of claim 24 moot.

Allowable Subject Matter

Claims 12-15 were objected to as being dependent upon a rejected base claim. However, the Office Action indicated that these claims would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Applicant submits that amended claims 12-15 satisfy this requirement. The amendments above were discussed in the Interview. The Examiner indicated that such amendments appear to place the claims in allowable form.

New Claims

New claims 30-38 were added to depend from claim 12 or claim 14, as the case may be. These claims are based on original claims as identified above. Claims 30-38 are patentable over Kellogg and Chee, either individually or in combination, at least because of their respective dependency ultimately from now independent claim 12 or now independent claim 14.

These new claims were discussed in the Interview. The Examiner indicated that such claims appear to be in allowable form.

Conclusion

Claims 12-23 and 25-38 satisfy the requirements of 35 U.S.C. §§102 and 103. Allowance of the above-identified patent application, it is submitted, is in order. Entry of the above amendments is respectfully requested because the amendments are consistent with allowable subject matter as indicated in the Office Action.

Respectfully submitted,

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